

AG Contract:KR882943TRD
ECS File: JPA-87-51
Project: SR88 Maintenance
Section: Roosevelt Bridge

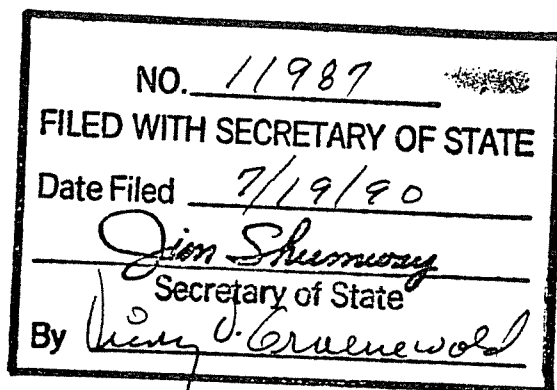
AMENDMENT TO
INTERGOVERNMENTAL AGREEMENT
BETWEEN
THE UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF RECLAMATION
AND
THE STATE OF ARIZONA

THIS AGREEMENT is entered into 19 July, 1990, pursuant to the Act of Congress of June 17, 1902 (32 Stat. 388) and all Acts amendatory thereof and supplementary thereto, between the UNITED STATES OF AMERICA, acting through the BUREAU OF RECLAMATION (the "Reclamation"), and represented by the Officer executing this contract on its behalf, and the STATE OF ARIZONA, acting through the ARIZONA DEPARTMENT OF TRANSPORTATION (the "State") and represented by the Officer executing this contract pursuant to Arizona Revised Statutes Sections 28-1801, et seq., and Arizona Revised Statutes Sections 11-951, et seq.

I. RECITALS

1. Reclamation and State previously entered into an agreement relating to the road relocations of State Routes 188 and 88, Roosevelt, Arizona. Said agreement became effective on June 2, 1987, and is filed with the Arizona Secretary of State as File No. 11987.

2. Reclamation and State desire to amend said agreement to define the parties' responsibilities for maintenance of State Route 88 (Apache Trail Highway) during the Reclamation's modifications to raise the Roosevelt dam.



3. For the purposes of this amendment, it is understood by the parties that the segment of State Route 88 that is the subject of this amendment is delineated as E-F on Exhibit B to the original agreement (attachment A). The expected date for award of the contract for modifications to the dam is September 1990.

4. Reclamation and State desire to amend said agreement to include a process to involve Reclamation in review of all modifications (change orders or force account orders).

THEREFORE, in consideration of the mutual stipulations and covenants in this agreement, both parties hereby agree as follows:

II. SCOPE OF WORK

1. Reclamation will:

a. Prepare and submit for approval, or cause to be prepared and submitted, for approval by the State Engineer, Arizona Department of Transportation, a traffic control plan for the road during the period September 1990 through July 1994, and administer and enforce same during construction of the project.

b. Provide and erect, or cause to be provided and erected, road construction warning signs in strict accordance with Bureau map entitled "Theodore Roosevelt Dam, Geology Site Preparation, Construction Sign Locations" dated June 1990, which is attached hereto as attachment B.

c. Notify, and obtain approval of the State Engineer, Arizona Department of Transportation, at least fourteen days prior to each road closure period that departs from the regular road closure defined in para. II.1.e.

d. Notify the U.S. Forest Service at Roosevelt, Gila County Sheriff Department and Arizona Department of Public Safety at least fourteen days prior to each road closure period that departs from the regular road closure defined in para. II.1.e. Extended road closures may be required at various times throughout the anticipated four year construction period.

e. Provide, or cause to be provided, continuous access for emergency and state administrative vehicles.

f. Limit regular road closures, for the duration of the dam modification work, to the following: Roads to be closed (as approved) daily from 6:00 P.M. to 6:00 A.M. (Monday through Thursday) and 8:00 A.M. to 2:00 P.M. (Monday through Friday), except for weekends and major holidays. Roads will remain open on weekends and major holidays.

g. Publicize, or cause to be publicized, utilizing public notices, the press, and radio, information to effectively inform the traveling public fourteen days prior to and on a continuing basis, of all road closures.

h. Provide, or cause to be provided, potable drinking water and two portable toilets for the use of the traveling public at the road closure points, during road closure periods of thirty minutes or more.

i. Inform contractor in specification paragraphs of road closure requirements. Inform contractor in specification paragraphs of Class C load requirements. Provide copy of applicable draft specification paragraphs to the State for review and comment prior to incorporation into the final specifications.

j. Provide a public meeting to inform area residents of expected road closures prior to award of the dam modifications contract.

k. Review correspondence and documents concerning contract changes and provide comments to the State in a timely manner.

2. State will:

a. Review and approve the Bureau traffic control plan, and make changes, deletions or additions as appropriate, which shall be carried out and enforced or cause to be carried out and enforced by Bureau.

b. Review draft specification paragraphs and return comments to Reclamation in a timely manner.

c. Inform Reclamation of States construction contract modifications. (As referred to in the original agreement under paragraph 2.(c) on page 3). Submit copies of correspondence and documents concerning changes to contracts which would increase or decrease the cost of the project to the Federal Government or alter the termini, character, or scope of work, to Reclamation for review and approval, prior to authorization of the change. A conformed copy of the modification contract between the State and the contractor shall be furnished to Reclamation as soon as practicable after it is executed.

III. MISCELLANEOUS PROVISIONS

It is further agreed by the parties hereto that:

1. Attached hereto and made a part hereof is a copy of the State's Resolution authorizing entry into this agreement, a copy of Bureau's Resolution authorizing entry into this agreement, and the Arizona Attorney Generals approval as to form.

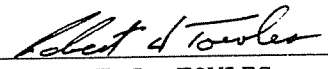
2. All parties hereto recognize that the provisions of Section 35-214, Arizona Revised Statutes, are applicable to this agreement.

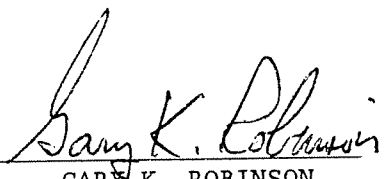
3. THIS AMENDMENT shall become effective on the date of filing with the Arizona Secretary of State.

IN WITNESS WHEREOF, the parties have executed this agreement the day and year first above written.

UNITED STATES OF AMERICA
BUREAU OF RECLAMATION

STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION

By 
ROBERT J. TOWLES
Project Manager

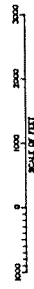
By 
GARY K. ROBINSON
Chief Deputy State Engineer

EXPLANATION

- PAVED ROAD
- UNPAVED ROAD
- JEOP TRAIL
- WASHES
- TRANSMISSION LINE



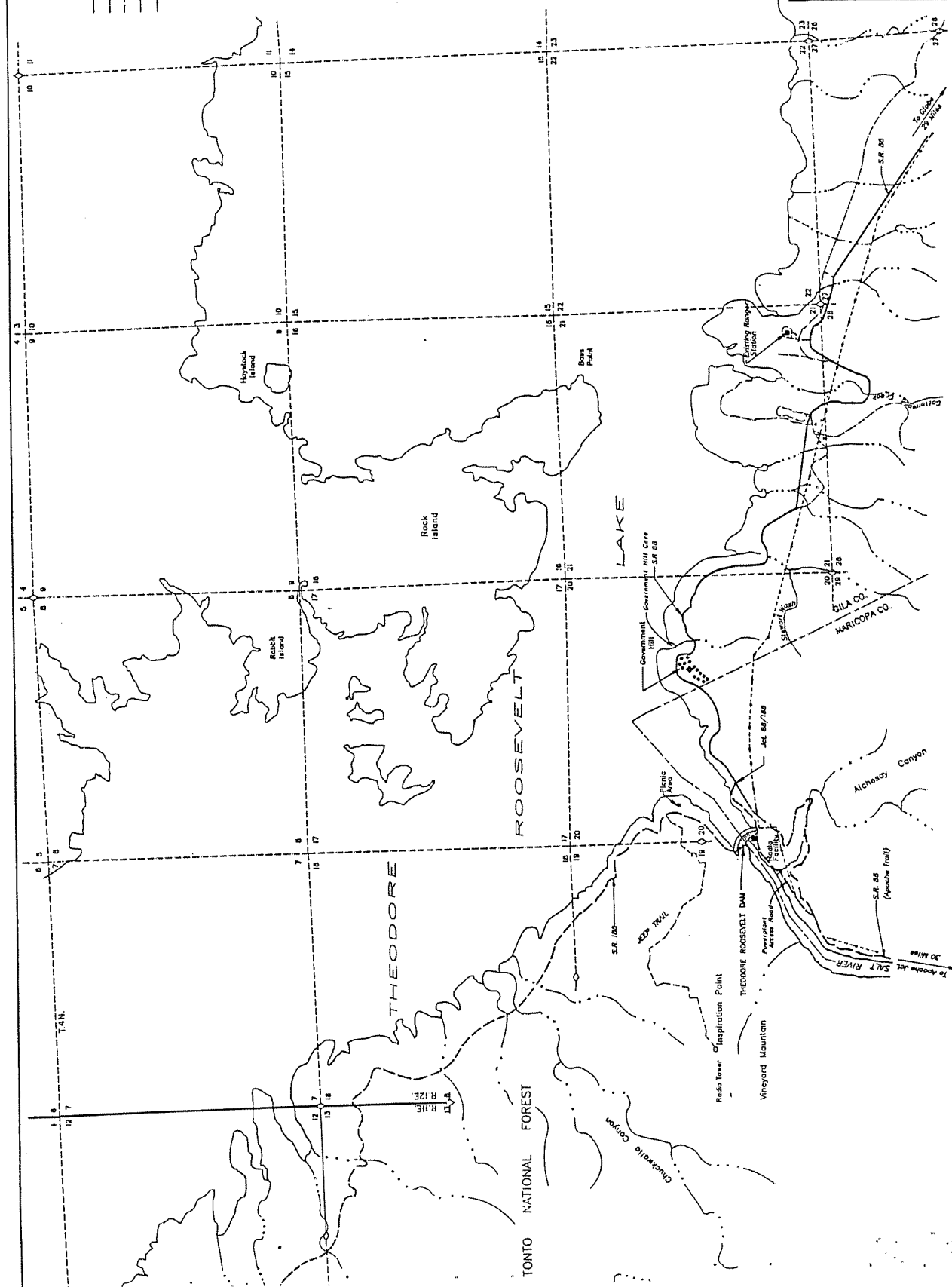
NOTES
This is an Auto-Cad generated map created by Edith Long
Theodore Roosevelt Dam and Windy Hill Atomic Quad sheets
Shoreline represents a reservoir surface of elevation 2084.
Mapping was done in September 1982.



ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SALT RIVER PROJECT, ARIZONA
SAFETY OF DAMS-MODIFICATION
THEODORE ROOSEVELT DAM
EXISTING ROADS

DESIGNED BY: J. L. ... FIELD APPROVAL: Bruce Z. Adkins
DRAWN BY: ... TECHNICAL APPROVAL: J. E. Anderson
CHECKED BY: ... APPROVED: ...
PROJECT, ARIZONA



ESTIMATED COSTS OF ROAD RELOCATIONS¹

ROAD RELOCATION SEGMENTS	TOTAL (DOLLARS)	ADOT COSTS ⁵		U.S.B.R. COSTS	
		PERCENT	DOLLARS	PERCENT	DOLLARS
1. SR 188 RELOCATION (BY ADOT) ²					
A. PORTION "A-C"					
1) NORTH APPROACH TO BRIDGE (APPROX. 0.6 MILES)	1,195,000	45	538,000	55	657,000
2) ROOSEVELT BRIDGE	11,000,000	45	4,950,000	55	6,050,000
3) SOUTH APPROACH TO BRIDGE (520 FOOT VIADUCT)	1,321,000	45	594,000	55	727,000
4) RETAINING WALL (FOR TEMPORARY ACCESS)	85,000	0	0	100	85,000
2. SR 88 RELOCATION (BY ADOT) ²					
A. PORTION "B-E" APACHE TRAIL CONNECTION (APPROX. 0.5 MILES)	805,000	45	362,000	55	443,000
B. RIGHT-OF-WAY AND UTILITY RELOCATIONS (ITEMS 1 & 2)	50,000	45	22,000	55	28,000
3. NONCONTRACT COSTS	2,000,000	45	900,000	55	1,100,000
A. CONSTRUCTION ADMINISTRATION	2,800,000	100	2,800,000	0	0
B. DESIGN	19,256,000	—	10,166,000	—	9,090,000
SUBTOTAL	11,400,000	0	0	100	11,400,000
5. SR 88 RELOCATION (BY ADOT) ³					
A. PORTION "C-D" (APPROX. 2.5 MILES). INCL. EROSION PROTECTION TO EL. 2175	11,400,000	0	0	100	11,400,000
B. RIGHT-OF-WAY AND UTILITY RELOCATIONS	400,000	0	0	100	400,000
C. NONCONTRACT COSTS	1,868,000	0	0	100	1,868,000
1) CONSTRUCTION ADMINISTRATION	732,000	0	0	100	732,000
2) DESIGN	14,400,000	—	0	—	14,400,000
SUBTOTAL	320,000	0	0	100	320,000
6. SR 188 EROSION PROTECTION FROM EL. 2142 TO 2175 (BY ADOT) ³					
A. STA 1050± TO STA 1512± (APPROX. 85,000 CU. YARDS)	2,180,000	0	0	100	2,180,000
1) STOCKPILE	190,000	0	0	100	190,000
2) PLACEMENT	32,000	0	0	100	32,000
B. STA 1512± TO STA 1618± (APPROX. 9,000 CU. YARDS)	368,000	0	0	100	368,000
C. NONCONTRACT COSTS	3,090,000	—	0	—	3,090,000
1) STOCKPILE & PLACE "A-C"					
2) PLACEMENT					
SUBTOTAL	1,875,000	0	0	100	1,875,000
7. SR 88 RELOCATION (BY USBR) ⁴					
A. PORTION "E-F" APACHE TRAIL UPGRADE (APPROX. 1.1 MILES)	50,000	0	0	100	50,000
B. RIGHT-OF-WAY AND UTILITY RELOCATIONS	470,000	0	0	100	470,000
C. NONCONTRACT COSTS	2,395,000	—	0	—	2,395,000
SUBTOTAL	39,141,000	—	10,166,000	—	28,975,000
TOTAL					

¹ Refer to Exhibit B for road locations.

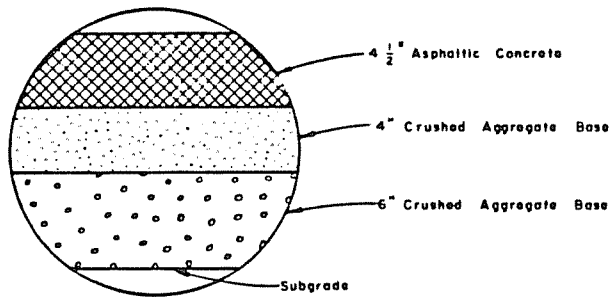
² To be designed and constructed by ADOT and financed jointly with the USBR. The USBR's share of the cost will be 55 percent, not to exceed \$11.9 million (January 1984 costs). Costs shown above from 1986 preliminary estimate.

³ To be designed and constructed by ADOT and financed by the USBR.

⁴ To be designed, constructed and financed by the USBR. Costs are adjusted from 1983 feasibility estimate.

GENERAL NOTES

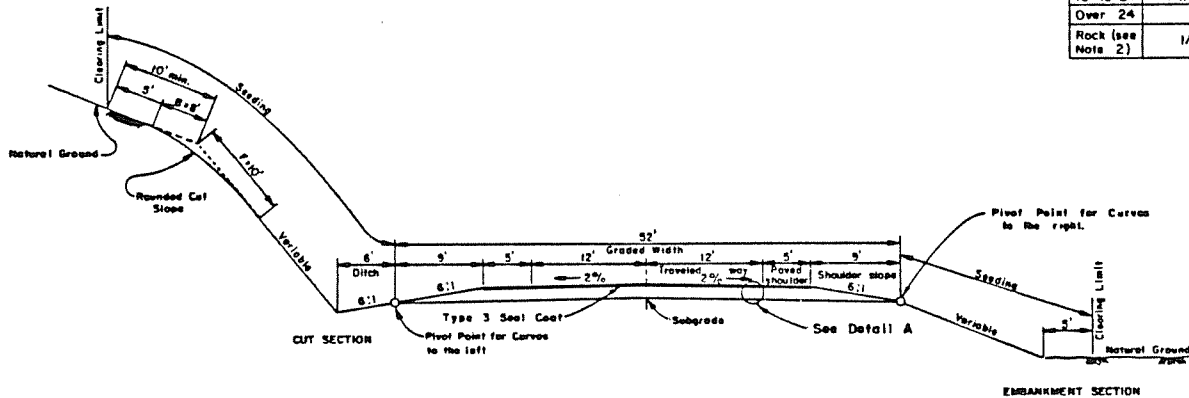
1. All earth slopes and all ripposable rock slopes shall be rounded. For cut slope distances less than 10 feet, B&F dimensions are reduced to the actual cut slope distance.
2. Excavation slope shall be steepened to 1/2:1 in solid rock as determined suitable by ADOT or USBR geologist.



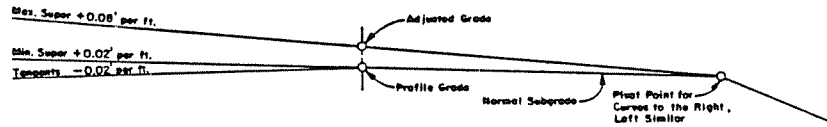
DETAIL A

HEIGHT	EMBANKMENT SLOPE
0 to 8	6:1
8 to 12	4:1
12 to 16	3:1
Over 16	2:1
Special	H/2:1

HEIGHT	EXCAVATION SLOPE
0 to 1	50:1
0 to 6	8:1
6 to 9	4:1
9 to 12	3:1
12 to 18	2:1
18 to 24	1-1/2:1
Over 24	1:1
Rock (see Note 2)	1/2:1



TYPICAL SECTION
PORTIONS "A-C" and "C-E"
SEE EXHIBIT B, DRAWING 25-330-77



METHOD OF SUPERELEVATING CURVES

REFERENCE DRAWING

For details on the locations of the proposed road relocations refer to Drawing 25-330-77.

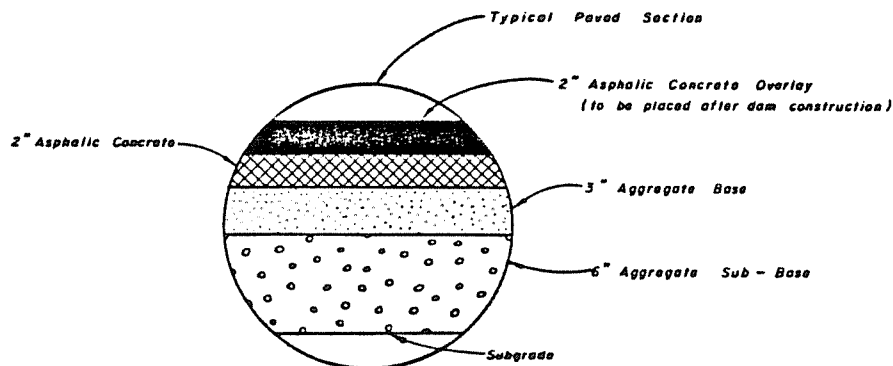
DESIGN STANDARDS

1. Maximum Degree of Curve - 8°
2. Maximum Grade - 6%
3. Design Speed - 50 mph

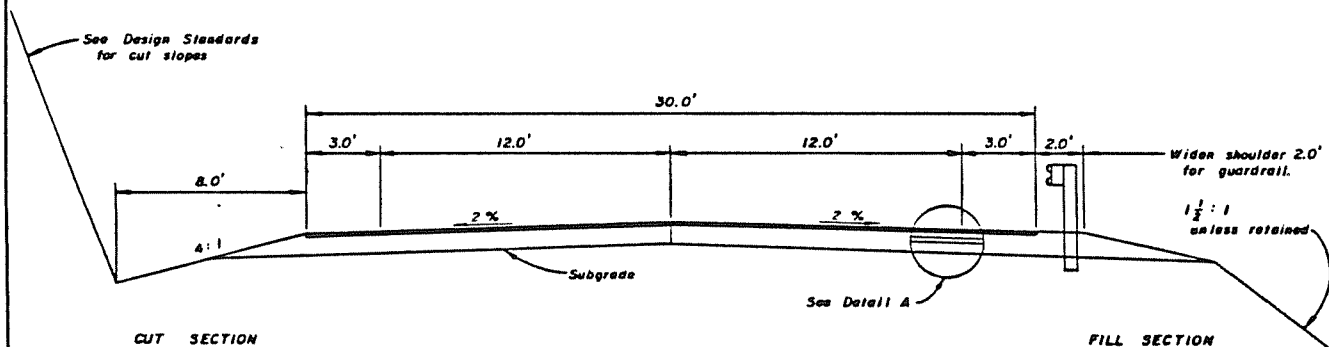
*At south end of bridge, circular curves up to 12° maximum will be acceptable. All other curves to be spiraled.
*At south end of bridge, 40 mph will be acceptable.

6-27-86 330	REVISED TYPICAL SECTION PORTION AND TITLE BLOCK
<p>ALWAYS THINK SAFETY</p> <p>UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION CENTRAL ARIZONA PROJECT SAFETY OF DAMS - MODIFICATIONS THEODORE ROOSEVELT DAM ROAD RELOCATIONS PORTIONS "A-C" AND "C-E" TYPICAL SECTION</p>	
DESIGNED	FIELD APPROVAL <i>Bruce F. Hutchins</i>
DRAWN <i>DES</i>	TECHNICAL APPROVAL <i>John E. Anderson</i>
CHECKED <i>Andy Dwyer</i>	APPROVED <i>John E. Anderson</i>
PHOENIX, ARIZONA	FEBRUARY, 1986
25-330-61	

EXHIBIT D



DETAIL A



TYPICAL SECTION

PORTIONS "B-F" and "F-G"

SEE EXHIBIT B, DRAWING 25-330-77

DESIGN STANDARDS

Portion "B-F" (ADOT)

Maximum Degree of Curve : 25° (approximately 230.0' radius)
Radius at approach to intersection with SR 88 may be a minimum of 150.0'
Maximum Grade : 6% (up to 8% on short segments 1,000.0' or less.)
Design Speed : 30 mph
Cut Slopes : 1:1, 1/2:1 in solid rock.
Fill Slopes : 1 1/2:1

Portion "F-G" (USBR)

Maximum Degree of Curve : 75° (75.0' radius)
Maximum Grade : 6% (up to 8% on short segments 1,000.0' or less.)
Design Speed : Equal to or higher than existing road.
Cut Slopes : 1:1, 1/2:1 in solid rock.
Fill Slopes : 1 1/2:1

REFERENCE DRAWING

For details on the locations of the proposed road relocations refer to Drawing 25-330-77.

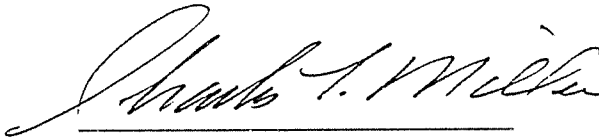
8-27-86 330	REVISED TYPICAL SECTION PORTIONS AND TITLE BLOCK
ALWAYS THINK SAFETY	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION CENTRAL ARIZONA PROJECT SAFETY OF DAMS - MODIFICATIONS THEODORE ROOSEVELT DAM ROAD RELOCATIONS PORTIONS "B-F" AND "F-G" TYPICAL SECTION	
DESIGNED.....	FIELD APPROVAL <i>Bruce E. Huthwaite</i>
DRAWN <i>R.S. STAUFFER</i>	TECHNICAL APPROVAL <i>Walter E. Anderson</i>
CHECKED <i>Greg Dyer</i>	APPROVED <i>Robert J. ...</i>
PHOENIX, ARIZONA	FEBRUARY, 1986
25-330-63	

EXHIBIT E

RESOLUTION

BE IT RESOLVED on this 22nd day of June 1990, that I, CHARLES L. MILLER, as Director of the Arizona Department of Transportation, have determined that it is in the best interests of the State of Arizona that the Department of Transportation, acting by and through the Highways Division, to amend an agreement with the U.S. Bureau of Reclamation for the purpose of defining responsibilities for constructing improvements to SR-88 during the reconstruction of Roosevelt Dam and defining road closure responsibilities.

Therefore, authorization is hereby granted to draft said agreements which, upon completion, shall be submitted for approval and execution by the Deputy State Engineer.

A handwritten signature in cursive script, reading "Charles L. Miller", written in dark ink.

CHARLES L. MILLER, Director
Arizona Department of
Transportation

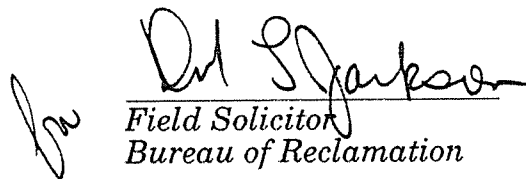
DETERMINATION

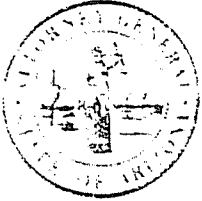
A. G. Contract No. KR882943TRD, which is an agreement between public agencies; to wit the STATE OF ARIZONA, DEPARTMENT OF TRANSPORTATION, HIGHWAYS DIVISION, and the UNITED STATES has been reviewed by the undersigned attorney for the United States who have determined that it is in the proper form and within the powers and authority granted to the United States.

No opinion is expressed as to the authority of the State of Arizona to enter into said agreement.

DATED this 7th day of July, 1990.

THE UNITED STATES OF AMERICA


Field Solicitor
Bureau of Reclamation



Attorney General

1275 WEST WASHINGTON

Phoenix, Arizona 85007

Robert R. Corbin

INTERGOVERNMENTAL AGREEMENT

DETERMINATION

A.G. Contract No. KR88-2943 TRD, an agreement between public agencies, has been reviewed pursuant to A.R.S. § 11-952, as amended, by the undersigned Assistant Attorney General who has determined that it is in the proper form and is within the powers and authority granted to the State of Arizona.

No opinion is expressed as to the authority of the remaining parties, other than the State or its agencies, to enter into said agreement.

DATED this 16th day of July, 1990.

ROBERT K. CORBIN
Attorney General

A handwritten signature in black ink, reading "James R. Redpath", is written over the typed name and title.

JAMES R. REDPATH
Chief Counsel
Transportation Division

Contract No. 7-07-32-L1552

UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF RECLAMATION

CONTRACT BETWEEN THE UNITED STATES
AND
THE STATE OF ARIZONA
RELATING TO THE ROAD RELOCATIONS
OF STATE ROUTES 188 AND 88, ROOSEVELT, ARIZONA

THIS CONTRACT is signed this 21st day of April, 1987, pursuant to the Act of Congress of June 17, 1902 (32 Stat. 388) and all Acts amendatory thereof and supplementary thereto including, but not limited to the Act of Congress of August 4, 1939 (53 Stat. 1187), as amended, and the Colorado River Basin Project Act of September 30, 1968 (82 Stat. 886) and the Act of Congress of August 30, 1890 (26 Stat. 371) and Acts amendatory thereof and supplementary thereto, the Act of September 2, 1964 (78 Stat. 808), and the Reclamation Safety of Dams Act of 1978 (PL 95-578), between the United States of America, hereinafter referred to as "United States", acting through the Bureau of Reclamation, hereinafter referred to as the "Bureau", and represented by the Officer executing this contract on its behalf, hereinafter referred to as the "Contracting Officer," and, the State of Arizona, acting by and through the Arizona Department of Transportation, hereinafter referred to as the "State" and represented by the Officer executing this contract pursuant to A.R.S. § 28-1801, et seq., and A.R.S. § 11-951, et seq.

WITNESSETH THAT:

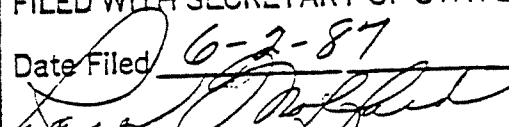
WHEREAS, under the Safety of Dams Act and Colorado River Basin Project Act, the Bureau is authorized to construct, operate and maintain water delivery systems commonly known as the Salt River and Central Arizona Projects, hereinafter referred to as the "Project"; and

WHEREAS, the Bureau has determined that modifications are required to raise Theodore Roosevelt Dam and it will be advantageous to remove public traffic off the top of the dam prior to modification; and

WHEREAS, the State now operates and maintains a State Highway System and may from time to time, construct, relocate, or improve the highway system and acquire lands and easements for such highways and desire to improve existing State Routes 88 and 188 (Exhibit A) in the vicinity of Roosevelt Lake, hereinafter referred to as "Highway Improvements"; and

WHEREAS, in connection with this Project and the Highway Improvements, there is a requirement for the construction, reconstruction, modification, relocation, operation and maintenance of highways, bridges, and other facilities and the parties wish to establish in advance the conditions under which such facilities will be constructed and maintained; and

Attachment A
to Amendment to
JPA 87-51

NO. <u>11987</u>
FILED WITH SECRETARY OF STATE
Date Filed <u>6-2-87</u>
 Secretary of State

WHEREAS, the Federal Highway Administration (hereinafter referred to as FHWA) is referred to herein so that it will be understood that the State's money for these highway improvements must come from both the Bureau and FHWA; and, the performance of the State's obligations hereunder is contingent upon receiving funds from both agencies;

WHEREAS, it is agreed that the references to FHWA contained herein are explanatory only, and those references do not impose upon the Bureau any duties to perform the obligations of FHWA referred herein;

WHEREAS, it is in the interest of both parties hereto for the State, subject to advancement or reimbursement as herein provided, to provide rights-of-way, designs, detailed plans, specifications, engineer's estimates of quantities and costs, to arrange for the relocation and construction of portions of State Route 88, portions of State Route 188, and to construct a new bridge to replace State Route 188 over Roosevelt Dam; and

WHEREAS, it is in the interest of the Bureau to (1) advance funds to the State for certain work the State is to do which advancement shall be in addition to FHWA reimbursements and, (2) reconstruct and relocate, at Bureau's expense, a portion of State Route 88; and

WHEREAS, for the purposes of this contract, it is understood by the parties that the Apache Trail begins at the new junction of State Route 88 with State Route 188 that is nearest the new Roosevelt Bridge (Point B) and ends at Point E, for cost sharing, and Point F for the end of all work. Points B, E and F refer to the points thus designated on Exhibit B attached hereto and incorporated herein; and

NOW THEREFORE, in consideration of the mutual stipulations and covenants herein contained, it is hereby agreed as follows in the Articles below:

1. The purpose and intent of this contract is to delineate the responsibilities of the parties regarding the relocation of the above mentioned existing roads, bridge and facilities as identified on Exhibit A, "Existing Roads", and by reference made a part hereof in accordance with the Articles below:

2. (a) The State shall prepare and submit to the Bureau for its review all necessary designs, detailed plans, specifications and engineer's estimates of quantities and construction costs for the relocation of portions of State Route 88 between Points E through D, and portions of State Route 188 between Points A through B, including a new bridge across Roosevelt Lake, all as depicted on Exhibit B "Proposed Road Relocations" attached hereto and by reference made a part hereof. The Bureau shall provide approval for the road and bridge designs within 30 days of receipt of final (95%) design and specifications given at final State design briefing. Comments will be given at a Bureau review briefing.

(b) For the portion "C-D" on Exhibit B the Bureau shall be responsible for reimbursing the State for all costs of the design, right-of-way acquisition (including utility relocation), construction, and construction administration.

(c) The State shall design and construct the Bridge and approaches and connecting roads as depicted as portions "A-C" and "B-E" on Exhibit B. For these portions the State shall be responsible for funding all costs for design; and further, for funding 45 percent of the costs of construction, right-of-way acquisitions (including utility acquisitions), and construction administration. Of this 45 percent contributed by the State, FHWA will reimburse to the State from federal highway funds as limited by FHWA regulations. For these portions the Bureau shall be responsible for 55 percent of the costs of construction, construction administration, and right-of-way acquisition (including utility relocation). A portion of "A-C" (north approach from Station 1585 to Station 1618) is designed and will be constructed by Federal Highway Administration (FHWA) as a portion of Project FLH 9-8(7). The Bureau will participate in the costs of this portion of "A-C" by a transfer of funds in the amount of \$1,220,000.00 to the State in March 1987. This is 95 percent of the amount estimated to fulfill Bureau financial responsibility on this portion of "A-C". Payment of the remaining actual costs for the Bureau's portion of costs of Project FLH 9-8 (7) will fulfill the Bureau's responsibility on this portion of "A-C". This sum is included in the figure of \$28,975,000 described in Article 5(a), but not the \$10,166,000 referred to in Article 5(a).

(d) All monies, for which the Bureau is responsible to advance to the State, shall be advanced in accordance with Article 15 herein.

(e) Cost of Construction shall consist of the actual costs of those items described in 2(a) above.

(f) Construction Administration costs shall consist of the actual costs of those items described as follows: Establishment of a field office, post bid services of bridge design consultant, utilities, field engineering, inspection and testing, surveys, travel, per diem and/or subsistence. Due to the specialized nature of the bridge construction, it is necessary for State to retain a construction management firm on the project. The management firm's fees will also be a Construction Administration expense. Also included are costs to resolve contractor claims, process Change Orders, costs of settling claims, arbitrations, or litigation, including the payment made to settle the claim, arbitration awards, or judgments, and the costs of defending the claims at claims hearings, arbitrations, or litigation. These costs shall include, but not be exclusive of, both parties' court costs and attorney's fees as determined by court judgment. State's outside professional engineers, other experts, or attorneys hired to prepare, or defend, the litigation, travel, per diem, and any other expenses necessary to defend or resolve the claim; and contractor's attorney's fees and court costs as awarded by the court, or agreed to in settlement.

(g) Design costs shall consist of preliminary engineering work to include: surveys, mapping, location analysis, materials testing and engineering, earth work computations, drainage analysis and design, structural and roadway design, and preparation of final construction plans, specifications and estimates.

(h) Right-of-Way costs are defined as the actual costs of Right-of-Way Plans, title searches, appraisals, acquisition, relocation, utility relocation, and all condemnation expenses, to include, but not limited to, attorneys fees and expert witness fees, as may be necessary.

3. The Bureau shall be responsible for the entire design and construction, at Bureau's expense, of State Route 88 for the portion "E-F" of State Route 88 as depicted on Exhibit B. State shall provide approval for road designs within 30 days of receipt of final (95%) design and specifications given at a final Bureau design briefing. Comments will be given at a State review briefing.

4. To protect fill slopes exposed to reservoir fluctuations as high as the 100-year flood pool (plus four feet of freeboard), the State shall design and install erosion protection up to elevation 2175 on completed State Route 188 fills north of the proposed Roosevelt Bridge. Fill slope protection of SR 88 will be included as part of the initial construction. The Bureau shall pay all costs of design, construction, construction administration, and stockpiling rock for this work.

5. (a) It is estimated by the State and the Bureau that the costs associated with all the relocations for design, right-of-way, fill slope protection, construction, and construction administration, shall be approximately \$28,975,000 to be paid by the Bureau, and \$10,166,000 to be paid by the State. The estimates associated with all portions of the design, right-of-way acquisition (including utility relocation), fill slope protection, construction, and construction administration are represented on the table which is attached hereto as Exhibit C and by reference made a part hereof. The parties recognize that Exhibit C is based on an approximate estimate only and is made with the best available current data. Upon completion of various contractual components an updated cost table, similar to Exhibit C, will be prepared by the party administering the construction contract and submitted to the other party for approval.

(b) The Bureau shall reimburse the State as follows: (1) an initial advancement shall be 10 percent of the Bureau's share of the contract. This initial advancement shall be made by the Bureau no more than 60 days after the request by the State; (2) thereafter, the Bureau shall reimburse the State every month for actual costs incurred by the State in the prior month. The monthly reimbursement by the Bureau shall be made within 60 days of receiving the State's bill for a particular month. As previously stated, the State's completion of its obligations will be conditioned on FHWA reimbursement in accordance with FHWA's regulations.

The maximum funds to be supplied by the Bureau on items 1, [Except 1A(4)], 2, 3, and 4A of Exhibit C shall not exceed \$11,900,000 in January 1, 1984, dollars; however, this figure of \$11,900,000 will be adjusted for cost increases in accordance with the Bureau publications "Bureau of Reclamation Construction Cost Trends for Bridges," using the year 1983 as the base year.

6. The typical section and design criteria for portions "A-C" and "C-D" of State Routes 188 and 88, and the typical section and design criteria for portions "B-E" and "E-F" of State Route 88, are shown on Exhibits D and E, respectively, attached hereto and by reference made a part hereof.

7. The State agrees to comply with the provisions of the National Environmental Policy Act (NEPA) including, but not limited to all environmentally related Federal, State and Local regulations, rules and ordinances, and the commitments found within the Final Environmental Assessment of the Theodore Roosevelt Dam State Route 88, Road Relocation and pages 308, 314-319 of the Final Environmental Impact Statement on Regulatory Storage (Int. F.E.S. 84-4) as applicable to the realignment and reconstruction of State Routes 88 and 188 attached hereto as Exhibit F. The Bureau will be responsible for the preparation and processing of all NEPA documentation deemed necessary by the Bureau to comply with NEPA and to satisfy any United States Forest Service (USFS) requirements regarding environmental clearance. The State shall, upon request from the Bureau, supply the Bureau with design information as required in the preparation of the NEPA document, and will provide staff assistance in developing a conceptual visual resources mitigation commitment plan. The State shall coordinate with the Bureau as required to ensure that compliance with NEPA is achieved.

8. State shall, in its preliminary planning stage and throughout the length of this contract, confer with the Construction Engineer, Arizona Projects Office in order to coordinate planning and construction activities. In the construction specifications, the State shall include provisions for coordination between the State, the Bureau and Bureau's contractor. The Bureau shall have the right to delay or suspend the State's construction of portion "C-D" as conflicts occur with the Bureau's contractor. However, this right shall be subject to the obligation to pay the State the expenses incurred by the State resulting from delay caused by such suspension, including construction administration costs as defined in Article 2(f). Within time and monetary constraints, the State shall endeavor to complete as much of portion "C-D" as possible prior to Bureau construction commencing on Roosevelt Dam.

9. (a) Upon completion of design and prior to solicitation of bids for construction, 5 (five) complete sets of specifications in draft form, a reproducible and 5 (five) prints of design drawings, the State's estimates, and a proposed construction phase schedule will be submitted to the Bureau for review and approval. A similar submission shall be made to State by Bureau for Bureau's portion, "E-F" Exhibit B, of State Route 88.

(b) It is State's and Bureau's present intent that the bridge and approaches shall be completed and open to traffic prior to commencement of modifications on the dam which are currently scheduled to start in July 1990. Therefore, following approval of the designs, specifications, schedule, and state estimates as provided above, State shall initiate construction of the appropriate relocated segments of State Route 88 and State Route 188, (the Bridge and approaches) as practically as possible, with the approved construction phase schedule, subject to the availability of funds from Bureau and FHWA, and the changes and delays that might occur in the construction schedule.

(c) Following the approval of the designs, specifications, schedule, and Bureau estimates, as provided above, Bureau shall initiate construction of its portion of State Route 88 ("E-F" Exhibit B), subject to availability of funds, and in accordance, as practically as possible, with the approved construction phase schedule.

(d) Throughout the progress of the construction of the relocated segments of the highway identified in Article 2 above, the Bureau shall have the right to review and inspect such construction and advise the State whether the State's contractors are complying with the specifications, contract, and proposed construction phase schedule. Also, the State shall have the right to review and inspect construction of the Bureau's portion and to advise the Bureau whether the Bureau's contractors are complying with the specifications, contract, and proposed construction schedule pertaining to the Bureau's portion of the road.

10. The State will acquire sufficient interests in lands for the construction for those portions of said relocation described in Article 2 above and Exhibit C. The Bureau will reimburse the State for all of its right-of-way costs incurred in the acquisition of land or land interest necessary for those portions of the relocated road described in Article 2 above. The reimbursement for right-of-way shall be for actual cost, reimbursable by the Bureau in the proportions set forth in Article 2 above and Exhibit C. The remainder of actual costs shall be reimbursed by FHWA from Federal Highway funds in accordance with appropriate FHWA regulations.

11. The State shall obtain any permit, agreement, or approval of plans as may be necessary from any local entities or landowners for the rearrangement or connection of the intersected streets. All costs to be paid by Bureau as set forth in Article 2 and Exhibit C. Also, the State will arrange for any and all public and private utility rearrangement or relocations that are necessary prior to undertaking any highway construction, the costs to be advanced by Bureau as set forth in Article 2 and Exhibit C. The remainder of the actual costs will be reimbursed by FHWA out of Federal Highway Funds in accordance with appropriate FHWA regulations. All relocation costs shall be based on replacement in accordance with FHPM 6-6-3-1, Transmittal 389, September 6, 1985, HNG-12, or any amendments thereto.

12. All construction to be performed by the State pursuant to this contract, shall be effected by State's contractor, or contractors, after competitive bidding in accordance with the applicable provisions of law.

13. Highway striping, installation of signs, lighting and other minor work may be performed by force account or State contractors as the State so elects. The State shall submit signing and striping plans and cost estimates to the Bureau for approval prior to performing this work. This work shall be paid for by Bureau as provided by Article 2 above and Exhibit C. The remainder shall be reimbursed by FHWA from Federal Highway Funds in accordance with appropriate regulations.

14. Each party agrees that it will maintain books and records in such detail as will properly reflect all items of costs which are reimbursable hereunder, as well as all applicable credits, and will retain documentary evidence in support thereof, such as timecards and other payroll records, subcontracts, purchase orders, stock requisitions, invoices, canceled checks, cost distribution worksheets, and evidence of costs and credits for recovery and disposal of salvaged materials, adequate to verify such costs and credits, and further agrees to preserve such books, records and documents during the life of this contract and until five (5) years after final payment. The State shall permit the Contracting Officer and the Comptroller General of the United States, or any of their authorized representatives, to examine and audit the same at all reasonable times during said period. The United States shall likewise permit any auditor of State, or any of the State's authorized representatives, to examine and audit the same at all reasonable times during said period. Both parties agree that current invoices or vouchers, whether interim or final, as well as payments theretofore made, shall be subject to adjustment based upon any such audit.

15. The Contracting Officer shall obligate sufficient funds in the amounts of the portion of the approved estimate which is to be paid by the Bureau on any costs incurred by State, including advancements and contracts for more than one year. The Bureau shall furnish the State with the statement of the amounts so obligated, and prior to the award of any state contract, the Bureau will pre-validate that funds are available. Said funds shall be advanced or reimbursed to the State in accordance with Article 5(b) and said reimbursed funds shall always be sufficient to permit State to disburse payments due to contractors, except for right-of-way cost (Article 10 and 11), highway striping (Article 13), and certain repairs under Articles 18 and 20(b). These last four costs may be reimbursed by Bureau quarterly within 60 days of receiving State's bill. At the beginning of each ensuing federal fiscal year beginning October 1, and pending the completion of construction under this contract, the Contracting Officer shall furnish the State with a statement of the amount that has been obligated for reimbursement to the State hereunder during such fiscal year. If the rate of progress of the work is such that it becomes apparent to the Contracting Officer that the funds so obligated are less than the amount

that will be required, the Contracting Officer may obligate additional funds for such purposes. If the rate of progress of the work is such that it becomes apparent to the Contracting Officer that the obligation of funds is in excess of the amount necessary, the Contracting Officer may reduce the funds so obligated by the amount of the excess. Such addition or reduction shall be based upon the State's cost estimates, the State's monthly statements of cost and expenses as provided for hereunder in Article 5(b), and upon the State's report of progress on construction. The State will be advised of any reduction or increase so made in such obligations. This Article does not relieve the Bureau from its obligation to pay the State, as provided in Article 5; the proportion of actual expenses set forth in Article 2 and Exhibit C. or those expenses described in Articles 10, 11, 13, 18 and 20(b) which shall be reimbursed on a quarterly basis.

16. State and Bureau agree that the construction to be performed under this contract will adhere to the standards of the approved plans and specifications which will result in a road consistent with the standards and classification requirements acceptable for its inclusion in the State Highway System. Initial paving of State Route 88 shall be to a partial structural thickness with the final pavement course to be placed after completion of the dam modification. The final pavement is part of this contract.

17. During construction of the portion "E-F" of State Route 88, that portion of the road may be closed periodically to public traffic. Upon completion of the construction to be performed by Bureau under this contract, the road will be inspected jointly by representatives of the Bureau and State. All deficiencies will be noted and any deficiency requiring correction prior to State's acceptance of the project will be corrected immediately by the Bureau.

18. It is anticipated that work covered by this contract may require additional minor work to complete the construction to a mutually agreed standard within one (1) year after the joint inspection. Such additional work will be accomplished by the State in accordance with Article 16 hereinabove. Reimbursement of actual costs will be made by Bureau in those proportions contained in Articles 2 and 5, and Exhibit C. The balance of actual costs will be reimbursed by FHWA in accordance with appropriate FHWA regulations. Except for this paragraph, acceptance of the various portions of Highway Improvements into the Highway System, will discharge the Bureau from its obligations to State.

19. (a) When any construction provided for in Article 2 and 3 has been completed, the constructing party shall send written notice of such completion to the other party. Within sixty (60) days after receiving the written notice of the completion of the work, if construction is unsatisfactory to the party notified, notice thereof in writing shall be given to the constructing party. Failure to give such notice within sixty (60) days after the receipt of the notice of completion shall be deemed conclusive evidence of approval of such work.

(b) Notice in behalf of the Bureau shall be given by or to:

Projects Manager
Bureau of Reclamation
Arizona Projects Office
23636 North 7th Street
P.O. Box 9980
Phoenix, Arizona 85068

(c) Notices in behalf of the State shall be given by or to:

State Engineer
Arizona Department of Transportation
Highways Division
206 South 17th Avenue
Phoenix, Arizona 85007

20. (a) It shall be the duty of the Bureau and the State to maintain their respective facilities in such a manner as to be deemed safe, and to repair and replace their respective facilities, at their own expense, as the necessity arises, consistent with customary management practices until such time as the Bureau's portion of State Route 88 has been accepted by the State into the State Highway System. All such work shall be done without interference with the operation of the work of the other party.

(b) All work done by the Bureau, or the State, in maintaining or replacing their respective facilities prior to acceptance into the State Highway System, shall be done in a good and workmanlike manner. In the event the Bureau or the State shall fail, refuse, or neglect to maintain their respective facilities, the other party may, after thirty (30) days written notice, replace, construct, repair, or change any of said facilities, forming a part of the roadway system, in such manner as the other party shall determine. The State shall be reimbursed by Bureau for all actual costs incurred under this Article by State.

21. The State shall be responsible for the maintenance of all of the roads and bridges constructed under the terms of this contract, not to include any driveways nor the permanent access road to the dam, once the roads and bridges have been accepted into the State Highway System, except for those repairs described in Article 18.

22. To the extent permitted by law, State and Bureau agree to defend, indemnify, and hold harmless each other and their agents, officials, employees and subsidiaries, from and against any and all claims, actions, demands, liability, damage, cost and expense of whatsoever character whether direct or indirect, or consequential, including loss or damage to property of either party hereto or of their persons and for the injury or death to any or all persons caused by or attributable to the negligence or fault of the State, Bureau, their employees or agents. As to any liability claims where the parties hereto may be jointly at fault, whether or not a named

defendant to an action, the parties agree that they will share in any settlement or judgment on the amount that is proportionate to the degree of negligence or fault of the respective parties as agreed to between them, or adjudicated by the courts; provided however, that nothing contained in this clause shall be deemed to modify or limit any liability which may be imposed by the Federal Tort Claims Act, 28 U.S.C. Section 2671, et seq. (1970), or Title 12, Chapter 7, Article 2 of the Arizona Revised Statutes, as they appropriately apply.

23. Liability of either party created by this contract shall be contingent upon the necessary appropriations by their respective legislatures and appropriate reservations of funds thereunder, and a satisfactory and feasible Environmental Impact Statement being issued and adopted; provided, however, that the State will not commence any work without prior approval of the Bureau and FHWA and once the Bureau's and FHWA's approval is obtained, and that portion of work bid by the State, the United States, through the Bureau or FHWA, shall provide funds as set forth in this contract up to the maximum for items 1, 2, 3, and 4a on Exhibit C as provided in Article 5.

24. The State and the United States warrant that no person or agency has been employed or retained to solicit or secure this instrument upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial agencies maintained by the State or the United States for the purpose of securing business. For breach or violation of this warranty, the innocent party shall have the right to annul this instrument without liability, or require the other party to pay the full amount of such commission percentage, brokerage, or contingent fee.

25. No Member of, or Delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract or to any benefit that may arise herefrom but these restrictions shall not be construed to extend to this contract, if made with a corporation or company for its general benefit.

26. This Agreement may be amended or supplemented upon mutual agreement between the parties hereto through the Regional Director, Lower Colorado Region, or his assign(s), or by the Director of the Arizona Department of Transportation or his assign(s).

27. In the event the United States raises or modifies Roosevelt Dam so as to cause a redesign in the bridge or roadway system, (including the portion built by Bureau "E-F" on Exhibit B), which causes subsequent construction changes, including possible realignment, the United States should pay all costs of same, which shall include, but not be limited to, design costs, construction costs, construction administration costs, and right-of-way costs (including utility relocation).

28. This Agreement will remain in force until terminated by written notice. Either party may terminate this Agreement providing sixty (60) days written notice is given to the other party, except that all monies due from the Bureau or FHWA for work bid by the State and/or actually incurred by the State shall be paid to the State. Except for Article 18, 21 and Article 27, this contract shall also terminate when improvements are accepted by the State, except that monies unpaid to the State shall be paid.

29. In case of termination of this Agreement, payment will be made by Bureau for services bid or incurred prior to the expiration date.

30. This contract is subject to cancellation by the Governor of the State pursuant to Section 38-511, Arizona Revised Statutes.

31. The effective date of the contract shall be the date it is filed with the Arizona Secretary of State. Notice of such filing by the State shall be given to the Bureau.

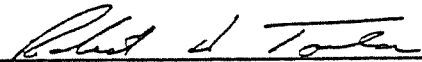
32. In the event of a violation, or breach, of the term of this agreement by one party, the other party shall have all remedies provided by law or equity, to include but not be limited to damages or injunctive relief.

33. Legal counsel for the Bureau shall sign a form statement in the form attached as Exhibit G, and shall attach an original of this statement to all original copies requested by the State.

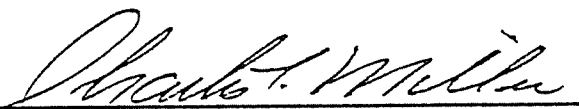
34. This agreement shall be binding upon and inure to the successor(s) and assign(s) of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have caused this contract to be executed as the day and year first above written.

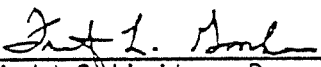
THE UNITED STATES OF AMERICA

By 
Acting For Regional Director
Lower Colorado Region,
Bureau of Reclamation, Department
of Interior

STATE OF ARIZONA

By 
Director,
Arizona Department of
Transportation


APPROVED AS TO LEGAL SUFFICIENCY

By  2-17-97
Field Solicitor, Department of
Interior, Phoenix, Arizona

ACKNOWLEDGMENT

State of Arizona)
) ss
County of Maricopa)

On this 21st day of April, 1987, before me, George Crider, a Notary Public in and for said County and State personally appeared Robert J. Towles, Project Manager, Central Arizona Project, Bureau of Reclamation, United States Department of the Interior, known to me to be the person described in the foregoing instrument, and acknowledged to me that he executed the same on behalf of the United States of America in the capacity therein stated and for the purpose therein contained.



Notary Public in and for the County of
Maricopa, State of Arizona

My Commission Expires:

My Commission Expires July 13, 1990

(SEAL)

ESTIMATED COSTS OF ROAD RELOCATIONS¹

ROAD RELOCATION SEGMENTS		TOTAL (DOLLARS)	ADOT COSTS ⁵		U.S.B.R. COSTS	
			PERCENT	DOLLARS	PERCENT	DOLLARS
1. SR 188 RELOCATION (BY ADOT) ²						
A. PORTION "A-C"						
1) NORTH APPROACH TO BRIDGE (Approx. 0.6 Miles)		* 2,327,878	45	1,047,545	55	1,280,333
2) ROOSEVELT LAKE BRIDGE (Incl. South Approach & Apache Trail Conn. Road)		* 18,665,631	45	8,399,534	55	10,266,097
3) SOUTH APPROACH TO BRIDGE		Incl. in Bridge cost	45		55	
4) PAVING OF APPROACHES AND APACHE TRAIL CONNECTING ROAD		553,608	45	249,124	55	304,484
5) RETAINING WALL (For Temporary Access)		Incl. in No. Appr.	0		100	
2. SR 88 RELOCATION (BY ADOT) ²						
A. PORTION "B-E" APACHE TRAIL CONNECTION (APPROX. 0.5 MILES)		Incl. in Bridge cost	45	0	55	0
3. RIGHT-OF-WAY AND UTILITY RELOCATIONS (ITEMS 1 & 2)		0	45		55	
4. NONCONTRACT COSTS		3,350,000	45	1,507,500	55	1,842,500
A. CONSTRUCTION ADMINISTRATION						
B. DESIGN		1,771,000	100	1,771,000	0	0
1) H.N.T.B.		1,858,000	100	1,858,000	0	0
2) FIGG & MULLER						
SUBTOTAL		28,526,117		14,832,703		13,693,414
5. SR 88 RELOCATION (BY ADOT) ³						
A. PORTION "C-D" (APPROX. 2.5 MILES). INCL. EROSION PROTECTION TO EL. 2175		* 9,192,746	0	0	100	* 9,192,746
B. RIGHT-OF-WAY AND UTILITY RELOCATIONS		* 381,482	0	0	100	* 381,482
C. NONCONTRACT COSTS						
1) CONSTRUCTION ADMINISTRATION		919,000	0	0	100	919,000
2) DESIGN		1,525,000	0	0	100	1,525,000
SUBTOTAL		12,018,228		0		12,018,228
6. SR 188 EROSION PROTECTION FROM EL. 2142 TO 2175 (BY ADOT) ³						
A. STA 1050± TO STA 1512± (APPROX. 85,000 CU. YARDS)						
1) STOCKPILE		320,000	0	0	100	320,000
2) PLACEMENT		2,180,000	0	0	100	2,180,000
B. STA 1512± TO STA 1618± (APPROX. 9,000 CU. YARDS)		190,000	0	0	100	190,000
C. NONCONTRACT COSTS						
1) STOCKPILE & PLACE "A-C"		32,000	0	0	100	32,000
2) PLACEMENT		368,000	0	0	100	368,000
SUBTOTAL		3,090,000		0		3,090,000
7. SR 88 RELOCATION (BY USBR) ⁴						
A. PORTION "E-F" APACHE TRAIL UPGRADE						
1) APACHE TRAIL		* 2,500,000	0	0	100	2,500,000
2) POWERPLANT SERVICE ROAD		* 1,500,000	0	0	100	1,500,000
B. RIGHT-OF-WAY AND UTILITY RELOCATIONS		50,000	0	0	100	50,000
C. NONCONTRACT COSTS		470,000	0	0	100	470,000
SUBTOTAL		4,520,000		0		4,520,000
TOTAL		48,154,345		14,832,703		33,321,642

¹ Refer to Exhibit B for road locations.

² To be designed and constructed by ADOT and financed jointly with the USBR. The USBR's share of the cost will be 55 percent, not to exceed \$11.9 million (Jan. 1984 costs). Figures with "*" are actual costs, others are latest estimate.

³ To be designed and constructed by ADOT and financed by the USBR.

⁴ To be designed, constructed, and financed by the USBR. Costs are adjusted from 1983 Feasibility Estimate.

⁵ To be reimbursed by FHWA (federal funds)

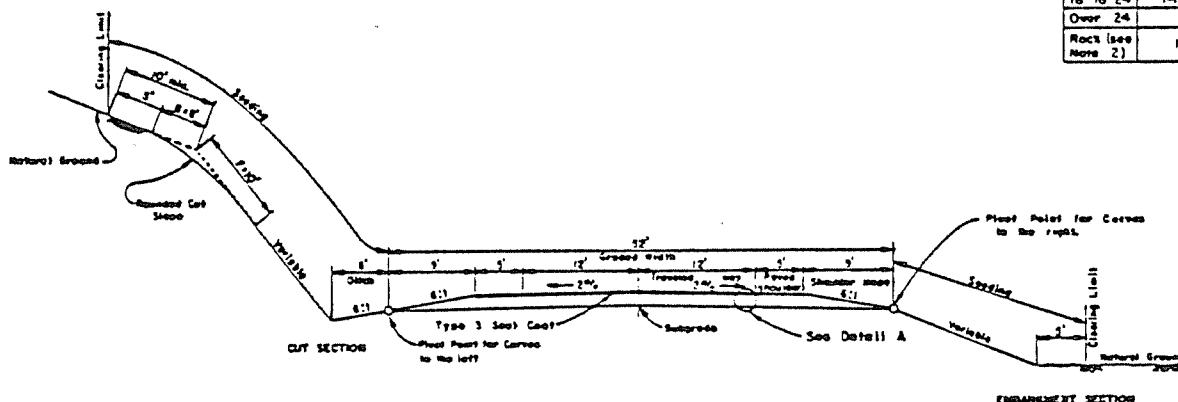
EXHIBIT C



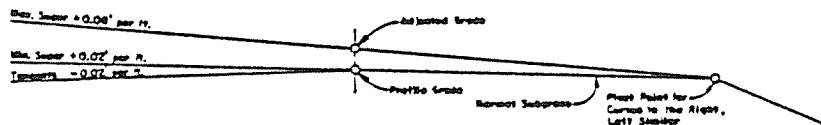
1. All earth slopes and all riprap rock slopes shall be rounded. For cut slope distances less than 10 feet, B & F dimensions are reduced to the actual cut slope distance.
2. Excavation slope shall be steepened to V2:1 in solid rock as determined suitable by ADOT or USBR geologists.

HEIGHT	EMBANKMENT SLOPE
0 to 8	6:1
8 to 12	4:1
12 to 16	3:1
Over 16	2:1
Special	H/2:1

HEIGHT	EXCAVATION SLOPE
0 to 1	50:1
0 to 6	6:1
6 to 9	4:1
9 to 12	3:1
12 to 18	2:1
18 to 24	1-1/2:1
Over 24	1:1
Rock (see Note 2)	1/2:1



TYPICAL SECTION
PORTIONS "A-C" and "C-E"
SEE EXHIBIT B, DRAWING 25-330-77



METHOD OF SUPERELEVATING CURVES

- * At south end of bridge, circular curves up to 12° maximum will be acceptable. All other curves to be spirals.
- * At south end of bridge, 40 mph will be acceptable.

For details on the locations of the proposed road relocations
refer to Drawing 25-330-77.


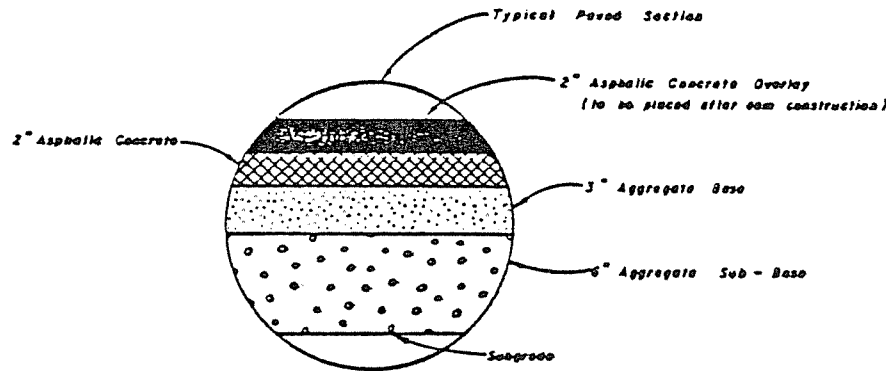
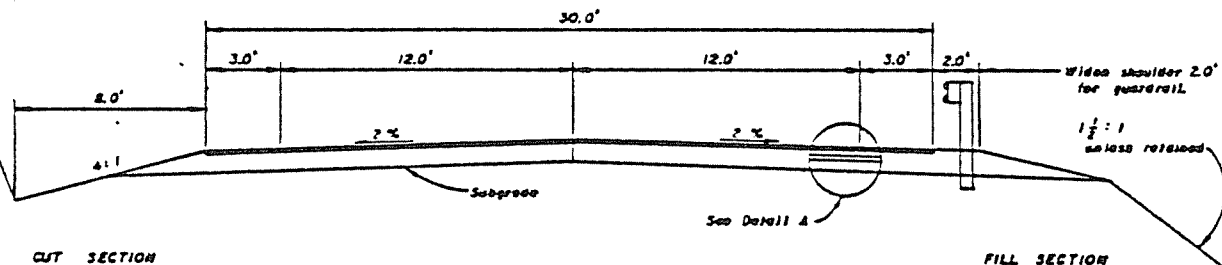
8-27-66 J30	REVISED TYPICAL SECTION PORTION AND TITLE BLOCK
 ALWAYS THINK SAFETY	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION CENTRAL ARIZONA PROJECT SAFETY OF DAMS - MODIFICATIONS THEODORE ROOSEVELT DAM ROAD RELOCATIONS PORTIONS "A-C" AND "C-E" TYPICAL SECTION	
DESIGNED _____ FIELD APPROVAL <u>Samuel F. Kitchner</u> DRAWN <u>DES</u> _____ TECHNICAL APPROVAL <u>Paul S. Johnson</u> CHECKED <u>Carl S. Johnson</u> _____ APPROVED <u>Paul S. Johnson</u>	
PHOENIX, ARIZONA	FEBRUARY, 1966 25-330-61

EXHIBIT D



DETAIL A

See Design Standards
for cut slopes



CUT SECTION

FILL SECTION

TYPICAL SECTION
PORTIONS "B-F" and "F-G"
SEE EXHIBIT B, DRAWING 25-330-77

DESIGN STANDARDS

Portion "B-F" (ADOT)

- Maximum Degree of Curve : 25° (approximately 250.0' radius)
- Radius of approach to intersection with SR 88 may be a minimum of 150.0'
- Maximum Grade : 6% (up to 8% on short segments 1,000.0' or less)
- Design Speed : 30 mph
- Cut Slopes : 1 1/2 : 1 in solid rock.
- Fill Slopes : 1 1/2 : 1

Portion "F-G" (USBR)

- Maximum Degree of Curve : 75° (75.0' radius)
- Maximum Grade : 6% (up to 8% on short segments 1,000.0' or less)
- Design Speed : Equal to or higher than existing road.
- Cut Slopes : 1 1/2 : 1 in solid rock.
- Fill Slopes : 1 1/2 : 1

REFERENCE DRAWING

For details as to the locations of the proposed road relocations refer to Drawing 25-330-77.

25-330-63	REVISED TYPICAL SECTION PORTIONS AND TITLE BLOCK
BLINDLY THINK SAFETY	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION CENTRAL ARIZONA PROJECT SAFETY OF DAMS - MODIFICATIONS	
THEODORE ROOSEVELT DAM	
ROAD RELOCATIONS	
PORTIONS "B-F" AND "F-G"	
TYPICAL SECTION	
DESIGNED.....	FIELD APPROVAL.....
DRAWN.....	TECHNICAL APPROVAL.....
CHECKED.....	APPROVED.....
PHOENIX, ARIZONA	FEBRUARY, 1968
25-330-63	

J. Environmental Commitments

Although the actual quantity and quality of the mitigation measures are not identified, Reclamation is committed to use the initiatives to provide mitigation at a sufficient level to either minimize or eliminate the impacts caused by the proposed action. The environmental commitments are displayed for only the proposed action because that is the action Reclamation expects to implement.

Other environmental commitments are listed, even though they do not take the form of mitigation. For example, Reclamation has committed itself to accomplish several studies as part of the Regulatory Storage Project. Although these studies are not mitigation, they are environmental commitments.

1. Construction Consideration

a. Construction and Public Safety

Safety conditions would be monitored by Reclamation to avoid accidents. Signs, flagmen, barricades, and other safety devices would be used to warn of potential hazards.

b. Blasting Control

Whenever blasting is required, the contractor would submit a blasting plan which would be evaluated prior to authorization of the initiation of blasting.

c. Dust Control and Air Pollution

Dust from construction would be controlled by establishing watering programs. Speed limits to reduce dust problems would be enforced based on the road conditions. Vehicles and equipment that show excessive emission of exhaust gases would not be operated until corrective repairs or adjustments are made. The burning of combustible materials not needed in construction would be initiated only with concurrence of local pollution-control and fire-prevention authorities.

(Pages 309 - 313 not applicable)

d. Noise Abatement

Reclamation will monitor noise levels to insure that noise levels would not exceed 75 decibels during nighttime operations nor 80 decibels during daytime operations.

e. Water Pollution Abatement and Waste Material Disposal

The contractor would comply with applicable Federal and state laws and regulations concerning control and abatement of water pollution.

Solid waste disposal would be accomplished through burning, burial, or removal to specified sites.

f. Erosion Control

Excavated slopes would be bermed, terraced, or corrugated to prevent erosion and aid revegetation after construction. Deep cut slopes would be benched or terraced and protected from cross-drainage by diking. The dikes would probably be constructed using the excavated material. Surface drains would be used at the toe of each beach or terrace.

g. Prehistoric and Historic Cultural Resources

If evidence of previously unrecorded cultural resources is discovered during construction, operations in the vicinity of the discovery would cease. Mitigation studies would be conducted as appropriate prior to resuming construction.

h. Vegetation

Removal or transplanting of protected native plants, when required, would be coordinated with the Arizona Commission of Agriculture and Horticulture in accordance with the Arizona Native Plant Law (ARS, Chapter 7, Article 1).

All construction sites where vegetation has been cleared or severely changed would be reclaimed. Disturbed areas susceptible to vegetative growth will be revegetated by seeding with native species or by other viable techniques. Haul roads will be scarified prior to seeding and barricaded to deter off-road vehicle use. Seeding and planting programs would be supervised by appointed Reclamation biologists.

i. Wildlife

The contractor would be prohibited from collecting or unnecessarily disturbing threatened or endangered wildlife in the site area. Personnel would be advised of Arizona Game and Fish Department regulations pertaining to protected wildlife species.

j. Riverine Resources

Construction impacts to riverine resources will be avoided where possible by locating haul roads away from water courses and minimizing river crossing areas.

2. Biological Resources

In developing, operating, and maintaining Plan 6 facilities, the goal of Reclamation is to incur no net loss of environmental values, and where possible, to enhance these values.

a. Riparian/Wetland Communities

The objective of Reclamation is to replace 100 percent of the habitat values of the Riparian/Wetland Communities upstream of Bartlett and Stewart Mountain Dams and at Lake Pleasant. The methods for meeting this commitment will include revegetating cottonwood/willow and mesquite habitat types in suitable areas within the exposed bed of Horseshoe Reservoir above elevation 1940. Based on current information, sufficient area will be exposed to recover all of the habitat value lost to construction and operation of Plan 6, including losses at Roosevelt and New Waddell Dams.

The revegetation of 250 acres of cottonwood-willow and 690 acres of mesquite will be done at the Cliff site.

The mixed scrub at all sites and cattail habitat at Cliff Dam will recover without revegetation through natural succession. To ensure full development of the habitat values, livestock grazing and ORV use would need to be eliminated in this riparian area and fencing may be required.

The draining of Horseshoe Reservoir and the breaching of Horseshoe Dam will be scheduled to coincide with the seeding and germination period of cottonwood and willow species in March and April.

All riparian habitat in the construction areas not required for construction purposes will be protected from damage. All lands containing riparian habitat which is removed due to construction outside the impoundment area will be contoured and revegetated to preconstruction conditions.

b. Other Terrestrial Communities

The upland desert habitat represents the major vegetation type within the Cliff, Roosevelt, and Waddell site areas and will be subjected to the greatest acreage loss within the reservoir inundation zone. Reclamation is committed to mitigating the loss of habitat value to the greatest extent practical or to compensate for the losses by increasing values in other habitats.

Vegetation clearing plans, which call for only partial conservation pool clearance in order to provide fish cover, will be put into effect at New Waddell and Cliff Reservoir sites. No clearing will occur in the conservation pool at Roosevelt Reservoir site.

The most practical means of decreasing losses is to manage the IDF areas at Waddell, Cliff and Roosevelt Damsites for wildlife by restricting grazing and off road vehicles. This management would increase habitat values by 87 percent over the unmitigated project action. An additional 5 percent of the lost value can be regained by providing permanent water sources in areas where water is not now available to wildlife.

Reclamation will restrict grazing and off-road vehicle access by fencing the IDF and/or by obtaining management agreements on project withdrawn lands at each project site, i.e. with the Forest Service at Cliff and Roosevelt Damsites, and the Maricopa County Parks Department and/or the State Land Department at New Waddell Damsite.

All areas of construction disturbance in the project sites not needed for permanent facilities will be returned to natural contours and revegetated with native species of plants.

c. Perennial Streams

Reclamation is committed to replacing all of the habitat value lost due to the construction and operation of Plan 6. Reclamation is further committed to avoiding impacts to the native fisheries in perennial streams caused by the increased water storage elevations at Cliff and New Waddell Damsites which could introduce non-native reservoir fish into currently isolated native fish habitat.

Up to 7 miles of river will be available in Horseshoe Reservoir. Reclamation's objective is to reclaim these 7 miles through stream management techniques which will replace the habitat value lost from the 6 miles of river inundated by Cliff Dam and Reservoir.

Reclamation will work with the Fish and Wildlife Service to design and evaluate a positive cutoff above the inflow design flood (IDF) elevation to provide a barrier to the movement of fishes upstream on Tule Creek into the Gila topminnow habitat. Fish barriers will be placed above the IDF elevation in the project area which contain native fish populations to avoid impacts to native stream fish.

d. Reservoir Aquatic Communities

Reclamation is committed to replace the lost habitat values to the greatest extent practical, compensate for these values by increasing habitat values elsewhere, or by increasing the density of game fish in project reservoirs as measured by catch/unit effort.

Reclamation will investigate the possible impacts of the introduction of Colorado River ichthyofauna into the New Waddell Reservoir through a cooperative effort with the Arizona Game and Fish Department, the Fish and Wildlife Service, and other interested parties.

Reclamation is committed to reducing the rate of drawdown at New Waddell Reservoir to 5 feet or less during March and the first half of April as often as is practical.

Reclamation is further committed to reducing conservation pool clearing to the minimum possible level. Currently, a total of 2,486 acres will be cleared at Cliff and Waddell Damsites primarily for human safety and navigation considerations as predicated on expected boat usage.

Minimum pools would be incorporated into the sediment and inactive storage pools at Cliff and New Waddell Reservoir sites. At Cliff Reservoir site this pool would be 1,030 acres in size with an average depth of 30 feet; at New Waddell Reservoir site the pool would be 1,540 acres in area and average 26 feet deep.

The construction of a harvest basin immediately downstream of Horseshoe Dam will facilitate the salvage of sport fish for stocking in Bartlett Reservoir. A management agreement will be required with the Arizona Game and Fish Department for such salvage and restocking operations.

e. Special Use Areas

The Roosevelt waterfowl management area will incur direct and indirect impacts from the anticipated eight-fold increase in recreation use of the lake which will reduce its value to migrating waterfowl. Reclamation is committed to reducing the effect of this disturbance by increasing the value of the management area.

The recreation plan for Roosevelt Reservoir calls for closing the recreation sites that are within the waterfowl area during the winter use period. Reclamation will provide irrigation equipment (either portable or permanent) and sufficient water to irrigate 100 acres of winter food crops for waterfowl. This measure will increase the Arizona Game and Fish Department's ability to provide winter food crops by approximately 50 percent.

f. Endangered Species

The Fish and Wildlife Service has issued a Biological Opinion under the Endangered Species Act that Plan 6 as proposed will jeopardize the continued existence of the bald eagle in the Southwest. The Jeopardy Opinion was issued because of the impacts of the use of recreation developments and opportunities at Cliff and Roosevelt Reservoirs and because of construction impacts at Roosevelt and Stewart Mountain Dams.

In accordance with established policy, Reclamation will work with the Fish and Wildlife Service, Arizona Game and Fish Department, and the National Forest Service to prepare an agreement to implement management strategies and actions to avoid adverse impacts on nesting bald eagles resulting from the increased recreation activities in the Plan 6 area.

Reclamation will continue to support the Forest Service's efforts to maintain nest wardens and provide liaisons between construction forces. The nest watch program will continue to receive funding from Reclamation for this effort.

Reclamation supports breaching Horseshoe Dam in a manner to promote stream and riparian development in the exposed Horseshoe Reservoir and to avoid excessive erosion. Reclamation will coordinate with the Fish and Wildlife Service to develop the requirements for evacuation of Horseshoe Reservoir to be included in the data submitted for final design and construction specifications.

Borrow excavation will be avoided at Meddler Point, if possible. If not, construction specifications will require the removal of materials during the eagle nonbreeding season and the stockpiling of materials outside the eagle breeding and foraging territory. Borrow areas will be restored to provide habitat suitable for eagle forage fish.

Award of the construction contracts associated with Stewart Mountain Dam will be scheduled to permit initiation of construction in April or May and then continue uninterrupted except for blasting. Construction specifications will exclude initiation of construction from October through March. Blasting activities will be prohibited from December through March.

Reclamation will work with the Fish and Wildlife Service to design and evaluate a positive cutoff above the inflow design flood (IDF) elevation to provide a barrier to the movement of fishes upstream on Tule Creek into the Gila topminnow habitat. The positive cutoff will be constructed unless unforeseen design problems or extreme costs are encountered.

Reclamation will participate in fishery investigations as part of an Interagency Agreement.

g. Project Monitoring

Reclamation will monitor the effects of the project and the success of all mitigation measures.

To ensure the adequacy of mitigation and compensation measures proposed in this plan and to facilitate monitoring the effects of the project, pre- and post-construction studies will be conducted. Studies may be required to investigate such topics as spawning in pre- and post-project reservoirs, effects of flood attenuation on downstream riparian areas, riparian reestablishment studies for Cliff Reservoir, alteration of temperature regimes and nutrient blockage on the Verde River, effects of upstream water exchanges on proposed riparian mitigation at Cliff Reservoir, investigations into the effects of the introduction of Colorado River ichthyofauna in conjunction with current studies, and river rehabilitation studies at Cliff Reservoir. Recommendations stemming from these studies suggesting additional mitigation would be evaluated and implemented if found to be justified.

3. Cultural Resources

Cultural values within all CAWCS impact areas have been identified or estimated, and recorded prehistoric and historic sites have been classified into type.

Data recovery and research studies to recover the information embodied in some of the archaeological and historical sites to be immediately and directly affected by the project will be implemented.

A program will be developed for monitoring, managing, and studying those archaeological and historical sites situated in less directly affected areas such as flood pools within the proposed Cliff and Roosevelt Damsites and surrounding areas that may be affected by increased recreational use.

A program will be developed for public distribution and interpretation of the study results so that the scientific and historic values can be appreciated by interested professionals and the general public.

A Programmatic Memorandum of Agreement (PMOA) has been negotiated in compliance with Section 106 of the National Historic Preservation Act. Under the terms of the PMOA, a general historic preservation plan is being developed for the entire CAP and the proposed mitigation for Plan 6 will be refined and coordinated with this plan as construction specifications are developed.

4. Social Resources

Impacts to people because of relocation occur in the Cliff and Roosevelt site areas with Plan 6.

For the full-time residents who would be required to relocate, Forest Service land bordering Roosevelt Lake Estates will be made available for resettlement. The provision of this land would require an exchange agreement between Reclamation and the Forest Service.

An accurate, reliable system for disseminating information to relocatees could be established so that they are well informed about relocation proceedings.

Monetary compensation will be provided to relocatees to cover costs of relocation. One of the provisions of the Uniform Relocation Act of 1970 includes replacing the homes of relocatees with "safe, sanitary, and decent housing."

Negotiations over exchange land have occurred between Reclamation and the Forest Service, and these will continue. An agreement has been reached that exchange land will be made available to relocatees. A system for disseminating information to relocatees will be established. The relocations will be carried out in accordance with, and within the limitations of, the Uniform Relocation Act.

INTERGOVERNMENTAL AGREEMENT

DETERMINATION

A. G. Contract No. 7-07-32-L1552 which is an agreement between public agencies; to wit the State of Arizona and the United States has been reviewed by the undersigned attorney for the United States who have determined that it is in the proper form and is within the powers and authority granted to the United States.

No opinion is expressed as to the authority of the State of Arizona to enter into said agreement.

DATED this 17th day of February, 1987.

THE UNITED STATES OF AMERICA

By Just L. Aml
Field Solicitor,
Bureau of Reclamation

EXHIBIT G

'87 MAY -4 P12:25



Attorney General

1275 WEST WASHINGTON

Phoenix, Arizona 85007

Robert K. Corbin

INTERGOVERNMENTAL AGREEMENT

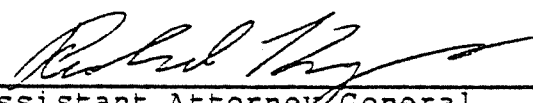
DETERMINATION

A. G. Contract No. 87-1171, is an agreement between public agencies, has been reviewed pursuant to A.R.S. § 11-952, as amended, by the undersigned Assistant Attorney General who has determined that it is in the proper form and is within the powers and authority granted to the State of Arizona.

No opinion is expressed as to the authority of the remaining parties, other than the State or its agencies, to enter into said agreement.

DATED this 28 day of May, 1987.

ROBERT K. CORBIN
Attorney General


Assistant Attorney General
Transportation Division